TABLE 164.120–7—ALTERNATIVE TEST METHOD STANDARDS FOR LAMINATING RESINS FOR USE IN LIFEBOATS, RESCUE BOATS, AND OTHER LIFESAVING EQUIPMENT [1]—Continued

Property	Test methods
(i) Barcol hardness	ISO 2039–2 or ASTM D 2583.
(ii) Specific gravity/density	ISO 1183 or ASTM D 792.

Property	Test method	Requirements [3]
(d) Lengthwise Mechanical & Physical Properties of Glass Cloth Base Plastic Laminate		
(Lengthwise direction of test specimens is parallel to the warp direction of glass fabric.)		
(1) Tested Under Standard Conditions:		
(i) Ultimate strength, flatwise	ISO 14125 or ASTM D 790	345 MPa (50,000 lb/in^2).
(ii) Initial modulus of elasticity, flatwise.	ISO 14125 or ASTM D 790	18,616 MPa (2.7×10E6 lb/in^2).
(iii) Ultimate tensile strength	ISO 527 or ASTM D 638	278 MPa (40,000 lb/in^2).
(iv) Ultimate compressive strength, edgewise.	ISO 604 or ASTM D 695	241 MPa (35,000 ln/in^2).
(v) Fire retardant	MSC Circ. 1006	Pass.
(vi) Water absorption, 24-hour immersion.	ISO 62 or ASTM D 570	0.5% max change in weight.
(vii) Barcol hardness	ISO 2039–2 or ASTM D 2583	55.
(viii) Specific gravity/density	ISO 1183 or ASTM D 792	[2].
(ix) Resin content, percentage	ISO 1172 or ASTM D 2584	[2].
(2) Tested Under Wet Conditions (Specimens must be immersed for 2 hours in boiling distilled water as per ASTM D 570 paragraph 7.5. The specimens must then be cooled in water at 23 °C and tested wet at standard conditions immediately after removal from the water.):		
(i) Ultimate strength, flatwise	ISO 14125 or ASTM D 790	310 MPa (45,000 lb/in^2).
(ii) Initial modulus of elasticity, flatwise.	ISO 14125 or ASTM D 790	17,237 MPa (2.5×10E6 lb/in^2).
(iii) Ultimate tensile strength	ISO 527 or ASTM D 638	278 MPa (40,000 lb/in^2).
(iv) Ultimate compressive strength, edgewise.	ISO 604 or ASTM D 695	241 MPa (35,000 ln/in^2).
(3) Tested Under Elevated Temperature Conditions (Specimens must be exposed to 70 °C for 1 hour and tested at that temperature.):		
(i) Ultimate strength, flatwise	ISO 14125 or ASTM D 790	276 MPa (40,000 lb/in^2).
(ii) Initial modulus of elasticity, flatwise.	ISO 14125 or ASTM D 790	15,858 MPa (2.3×10E6 lb/in^2).
(4) Tested After Exposure to Liquid Chemicals (Standard test chemical reagents.)		
(i) Change in mass & dimensions.	ISO 175 or ASTM D 543	0.1% max.
(ii) Ultimate strength	ISO 14125 or ASTM D 790	[2].
(5) Tested After Weathering (Specimens must be weathered by either: 1 year per MIL–R–7575C or 500-hour exposure per ASTM G154 Table X2.1 Cycle 1 or 3.):		
(i) Ultimate strength, flatwise	ISO 14125 or ASTM D 790	310 MPa (45,000 lb/in^2).
(ii) Initial modulus of elasticity, flatwise.	ISO 14125 or ASTM D 790	17,237 MPa (2.5×10E6 lb/in^2).
(iii) Fire retardant	MSC Circ. 1006	Pass.

[1] Each standard in this table is incorporated by reference, see § 164.120–5 of this subpart.
[2] There are no requirements for these properties, but the values must be determined and reported. Calculations for ultimate flexural strength after immersion in chemical fluids must be based on the dimensions of the specimens before immersion.
[3] The specimens must show no cracking, crazing, softening, delamination, or any other visible deterioration after conditioning exposure or immersions.

§ 164.120–9 Procedure for acceptance.

(a) Fire retardant resin is not subject to formal approval, but will be accepted by the Coast Guard on the basis of this subpart for use in the manufacture of lifesaving equipment. Coast Guard acceptance of fire retardant resin for use in the manufacture of lifesaving equipment does not guarantee Coast Guard acceptance of the manufactured lifesaving equipment.

(b) *Resin manufacturer requirements.* The resin manufacturer must submit the test report, material data sheet, including instructions for use, and quality control procedures in accordance with 46 CFR 159.005–9.

(c) *Independent laboratory requirements.* The independent laboratory must perform each inspection and test required by §164.120–7 of this subpart, and prepare a report in accordance with 46 CFR 159.005–11 and submit the report to the Commandant for acceptance.

§164.120–11 Production quality control requirements.

The resin manufacturer must institute a quality control procedure to ensure that all Coast Guard-accepted resin is produced to the same standard, and in the same manner as the tested resin accepted by the Commandant. The manufacturer's quality control personnel must not work directly under the department or person responsible for either production or sales.

§164.120–13 Marking, labeling, and instructions for use.

(a) *Marking and labeling.* Each container for the resin must be permanently marked with at least the following information—

(1) Manufacturer's name or trademark, batch number, date of manufacture, and date of expiration;

(2) Chemical type of the resin;

(3) Maximum usable storage life of the resin (uncatalyzed and catalyzed) and recommended storage conditions;

(4) Maximum allowable shelf life at various temperatures of impregnated fabric before curing; and

(5) Precautionary markings.

(b) Instructions for use must be included with each shipment of approved material and must include—

(1) Recommended mixing and impregnating procedures, including recommended types, percentages, and manner of utilization of catalysts, retardants, and fillers, as applicable;

(2) Range of time, temperature, and pressure cycles recommended to effect the cure for laminates; and

(3) Precautionary information on usage, storage, and handling.

§164.120–15 Procedure for acceptance of material change.

(a) Each change in material from the resin accepted under §164.120–9 of this subpart must be accepted by the Commandant before being used in any production lifeboat or rescue boat. The manufacturer must submit any such change following the procedures set forth in §164.120–9 of this subpart, but documentation on items that are unchanged from the resin accepted under §164.120–9 of this subpart need not be resubmitted.

(b) Determinations of equivalence of materials will be made by the Commandant only.

Subpart 164.900—Preemption

SOURCE: USCG–2010–0048, 76 FR 63015, Oct. 11, 2011, unless otherwise noted.

§164.900–1 Preemption of State or local law.

The regulations in this part have preemptive effect over State or local regulation within the same field.

§164.900–3 [Reserved]

PART 165 [RESERVED]